

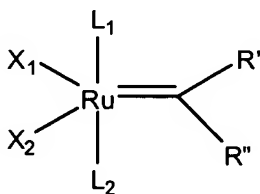
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-9. (Cancelled).

10. (Currently amended) A metathesis catalyst ~~which includes~~ comprising a phosphorus containing ligand which is a heterocyclic organic compound in the form of a phosphabicycloalkane with a ligating phosphorus atom as an atom in the heterocyclic ring structure of the heterocyclic organic compound.

11. (Currently amended) A compound of formula 3:



[[.....]] (3)

wherein

L₁ is a neutral electron donor ligand;

L₂ is a phosphorous containing ligand in the form of a heterocyclic organic compound in the form of a phosphabicycloalkane with a ligating phosphorus atom as an atom in the heterocyclic ring structure of the heterocyclic organic compound;

X₁ and X₂ are independently ~~selected from~~ an anionic ligand; and

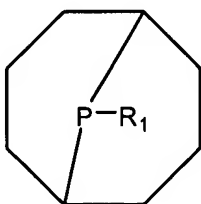
R' and R'' are independently ~~selected from H~~ [[and]] or an organyl.

12. (Original) The compound of claim 11 which is a homogeneous metathesis catalyst.

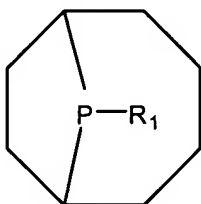
13. (Currently amended) The compound of ~~either one of claims~~ claim 11 ~~or 12~~ wherein L_1 is the same as L_2 .

14. (Currently amended) The compound of ~~any one of claims~~ claim 11 to 43 wherein the phosphorus containing ligand of L_2 comprises a phosphine ligand.

15. (Original) The compound of claim 14 wherein L_2 is a 9-phosphabicyclo[3.3.1]nonane, of formula 2a, or a 9-phosphabicyclo[4.2.1]nonane of formula 2b or mixtures thereof:



[[.....]] (2a)



[[.....]] (2b)

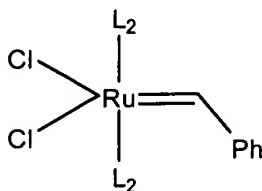
wherein R_1 is H or an organyl.

16. (Original) The compound of claim 15 wherein R_1 is $-C_{20}H_{41}$.

17. (Original) The compound of claim 15 wherein R_1 is cyclohexyl.

18. (Currently amended) The compound of ~~any one of claims~~ claim 11 to 47 wherein X_1 and X_2 are each ~~independently selected from a~~ halide.

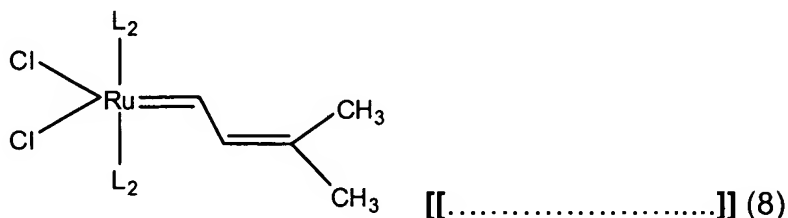
19. (Currently amended) The compound of claim 11 which is a compound of formula 7.



[[.....]] (7)

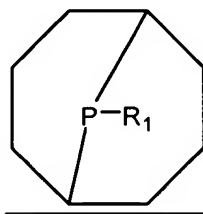
wherein L_2 is the same or different ~~and is as defined in claim 11.~~

20. (Currently amended) The compound of claim 11 which is a compound of formula 8

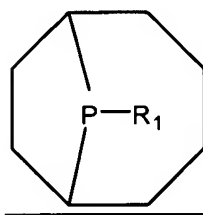


wherein L_2 is the same or different ~~and is as defined in claim 11.~~

21. (Currently amended) The compound of ~~either one of claims~~ claim 19 ~~or 20~~ wherein L_2 is ~~as defined in claim 15~~ a 9-phosphabicyclo[3.3.1]nonane, of formula 2a, or a 9-phosphabicyclo[4.2.1] nonane of formula 2b or mixtures thereof:



____ (2a)

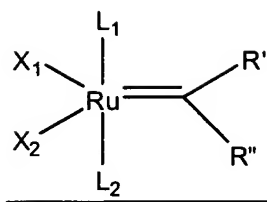


____ (2b)

wherein R_1 is H or an organyl.

22-23. (Cancelled).

24. (Currently amended) A catalysed metathesis reaction ~~wherein~~ comprising subjecting at least one olefinic compound ~~is subjected~~ to metathesis in the presence of a compound of ~~claim 3~~ formula 3:



(3)

wherein

L₁ is a neutral electron donor ligand;

L₂ is a phosphorous containing ligand in the form of a heterocyclic organic compound in the form of a phosphabicycloalkane with a ligating phosphorus atom as an atom in the heterocyclic ring structure of the heterocyclic organic compound;

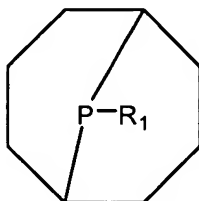
X₁ and X₂ are independently selected from an anionic ligand; and

R' and R'' are independently selected from H ~~[[and]]~~ or an organyl.

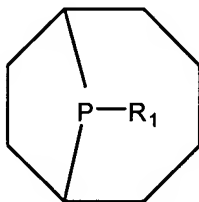
25. (Currently amended) The catalysed metathesis reaction of claim 24 wherein the compound of ~~claim 11~~ formula 3 is formed in situ.

26. (Cancelled).

27. (New) the compound of claim 20 wherein L₂ is a 9-phosphabicyclo[3.3.1]nonane, of formula 2a, or a 9-phosphabicyclo[4.2.1] nonane of formula 2b or mixtures thereof:



(2a)



(2b)

wherein R₁ is H or an organyl.

28. (New) A catalysed metathesis reaction comprising subjecting at least one olefinic compound to metathesis in the presence of a metathesis catalyst comprising a phosphorus containing ligand which is a heterocyclic organic compound in the form of a phosphabicycloalkane with a ligating phosphorous atom as an atom in the heterocyclic ring structure of the heterocyclic organic compound.

29. (New) The catalysed metathesis reaction of claim 24 or 28, wherein the metathesis reaction is a homogeneous metathesis reaction selected from the group consisting of cross-metathesis, ring-opening metathesis polymerization and ring closing metathesis.